

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Industrial permit. The stormwater discharge results from a petroleum bulk terminal operation. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Sunoco Partners Marketing & Terminals
Manassas Terminal
10315 Balls Ford Road
Manassas, VA 20109

Facility Location: 10315 Balls Ford Road
Manassas, VA 20109

Facility Contact Name: John D. Humphreys
Telephone Number: 703-368-9055
2. Permit Number: VA0087858
Expiration Date: 22 February 2010

Other VPDES Permits: Not Applicable
Other Permits: Registration Number 70235 – DEQ Air Permit
VAR0000015883 – RCRA (Hazardous Waste)

E2/E3/E4 Status: Not Applicable
3. Owner Name: Sunoco Partners Marketing & Terminals, L.P.
Owner Contact/Title: John D. Humphreys / Terminal Manager
Telephone Number: 703-368-9055
4. Application Complete Date: 23 September 2009
Permit Drafted By: Douglas Frasier
Date Drafted: 5 January 2010
Draft Permit Reviewed By: Alison Thompson
Date Reviewed: 8 January 2010
Public Comment Period: Start Date: 9 April 2010
End Date: 10 May 2010
5. Receiving Waters Information: See **Attachment 1** for the Flow Frequency Determination.
Receiving Stream Name: Bull Run, UT
Drainage Area at Outfall: 0.08 square miles
River Mile: 0.11
Stream Basin: Potomac River
Subbasin: None
Section: 7a
Stream Class: III
Special Standards: g
Waterbody ID: VAN-A 21R
7Q10 Low Flow: 0.0 MGD
7Q10 High Flow: 0.0 MGD
1Q10 Low Flow: 0.0 MGD
1Q10 High Flow: 0.0 MGD
Harmonic Mean Flow: 0.0 MGD
30Q5 Flow: 0.0 MGD
303(d) Listed: No
30Q10 Flow: 0.0 MGD
TMDL Approved: Yes – downstream
Date TMDL Approved: 26 September 2006
Bull Run Benthic
6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> State Water Control Law</div> <div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> Clean Water Act</div> <div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> VPDES Permit Regulation</div> <div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> EPA NPDES Regulation</div>	<div style="margin-bottom: 5px;"><input type="checkbox"/> EPA Guidelines</div> <div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> Water Quality Standards</div> <div style="margin-bottom: 5px;"><input checked="" type="checkbox"/> Other: 9 VAC 25-120</div>
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7. Licensed Operator Requirements: Not Applicable
8. Reliability Class: Not Applicable

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input checked="" type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input checked="" type="checkbox"/> TMDL		

10. Wastewater Sources and Treatment Description:

Sunoco operates a petroleum product distribution terminal on Balls Ford Road in Manassas, Virginia. This terminal receives petroleum products (several grades of gasoline and home heating oil) from the Colonial Pipeline. They are stored in nine (9) above ground storage tanks (ASTs) that are located within dike areas on the property. Capacities of tanks are provided in **Attachment 3**. Products are loaded onto transport trucks at a covered loading rack for retail distribution.

OUTFALL 001

This outfall was previously the only external outfall at this facility. In 2004 the flows from the original dike area, the roof of the loading rack and a portion of the parking area were diverted with PVC piping. The PVC pipe discharged at the same location as Outfall 001 and was designated as Outfall 002 in the previous reissuance. Flows were diverted around the pond so it could be drained because Colonial Pipeline needed to conduct work adjacent to the pond's berm.

Upon completion of the above work, Sunoco decided to create a second dike area where the pond was previously located. Two new ASTs were installed; T-21 and T-22 (see **Attachment 3**). Outfall 001 is the designated discharge point for this new tank containment area.

OUTFALL 002

As previously stated, this was a new permitted Outfall for this facility during the previous reissuance. It was created to divert flows around the pond. The majority of the flow from the property is discharged through this Outfall. Flows include stormwater from the original dike area, the roof of the loading rack and a portion of the paved parking area.

ACTIVITY DESCRIPTIONS

AST Dike Areas: Nine (9) ASTs are located in graveled dike areas; the seven (7) original and two (2) new tanks located at the former pond location. Stormwater collects via gravity to the lowest point and is visually inspected prior to discharging the stormwater through Outfall 001 and Outfall 002.

Loading Rack: The rack has four loading bays. Wash water and any spills in the loading rack area drain to holding tanks. The contaminated waters in the two 20,000 gallon holding tanks are trucked offsite for recovery and disposal. The loading rack is equipped with a fire suppression system. This system requires annual testing with a small amount of foam included.

Truck Washing: Exterior truck washing is done at the facility; typically on a weekly basis. The storm drain is covered and the wash water is collected with a vacuum into a tank mounted on a trailer. The wash water is hauled to the Upper Occoquan Service Authority Wastewater Treatment Plant (VA0024988) for final disposal.

INTERNAL OUTFALL 101

Hydrostatic Test Waters: This discharge is generated as needed to test the integrity of the ASTs and the transport trucks. The last test occurred in 1997 with all permit limits met. One hydrostatic testing was completed during the current permit cycle; however, the test was for a new tank prior to the introduction of any petroleum product. The facility was only required to monitor for Chlorine and pH.

See **Attachment 2** for the NPDES Permit Rating Worksheet.

See **Attachment 3** for a facility schematic/diagram.

TABLE 1
OUTFALL DESCRIPTION

Outfall Number	Discharge Sources	Treatment	Average 30-day Flow	Outfall Latitude and Longitude
001	Industrial Stormwater	See Item 10 above.	0.250 MGD	38° 47' 57" N / 77° 30' 15" W
002	Industrial Stormwater	See Item 10 above.	0.250 MGD	38° 47' 57" N / 77° 30' 15" W
101	Hydrostatic Test Water	See Item 10 above.	2 MGD	38° 47' 57" N / 77° 30' 15" W
See Attachment 4 for the Gainesville topographic map.				

11. Sludge Treatment and Disposal Methods:

There is no municipal sludge generated at this facility.

12. Discharges, Intakes, Monitoring Stations, Other Items in Waterbody VAN-A21R:TABLE 2
DISCHARGES, INTAKES & MONITORING STATION LOCATIONS

Permit Number	Facility Name	Type	Receiving Stream
VA0087891	Evergreen Country Club	Municipal	Chestnut Lick, UT
VA0085901	IBM Corporation	Industrial/Remediation	Flat Branch, UT
VAR051744	Colonial Pipeline - Bull Run	Stormwater Industrial	Bull Run, UT
VAR050995	Manassas City - Department of Public Works		Flat Branch, UT
VAR051011	Superior Paving Corporation - Centreville Plant		Bull Run, UT
VAR051033	Yellow Freight System Incorporated		Canon Branch, UT
VAR051084	MIFCO - Manassas Ice and Fuel Company		Flat Branch, UT
VAG110100	Virginia Concrete Company Inc - Gainesville	Industrial/Concrete	Rocky Branch, UT
VAG110074	Titan Virginia Ready Mix LLC - Centreville		Bull Run, UT
VAG110070	Mid Atlantic Materials Incorporated - Manassas		Youngs Branch
VAG406413	Poague Residence	Single Family Homes	Little Bull Run, UT
VAG406467	Neely William Residence		Bull Run, UT
VAG406461	Catharpin Farms		Lick Branch, UT
VAG406404	Umberger Residence		Chestnut Lick, UT
VAG406435	Bonilla Henry Residence		Little Bull Run, UT
VAG406406	Galleher Jr Thomas - Residence		Chestnut Lick, UT
VAG406475	Siddiqui Assadullah Residence		Bull Run Creek
VAG406295	Rivera Norberto Residence		Bull Run, UT
VAG406298	Vignola Robert Residence		Little Bull Run, UT
VAG406216	Phillips Earnest A Residence		Bull Run, UT
VAG406209	Evergreen Center - Residence		Chestnut Lick, UT
VAG406220	Thorpe Joseph H Residence		Occoquan River, UT
VAG406242	Lake Jackson Drive Community Residences		Cabin Branch, UT
VAG406078	Mullins Lisa A Residence		Occoquan River, UT

TABLE 2 (continued)			
Permit Number	Facility Name	Type	Receiving Stream
VAG406094	Hunter Josiah Residence	Single Family Homes	Bull Run, UT
VAG406272	Cook Donald E Sr Residence		Bull Run
VAG406273	Casson Robert A Residence		Bull Run, UT
VAG406315	Shaw Robert Residence		Black Branch, UT
VAG406109	Sudley United Methodist Church		Little Bull Run
VAG406157	Thaggard David H Residence		Broad Run, UT
VAG406329	Oviatt Stephen Residence		Bull Run, UT
VAG406367	Nason Noah - Residence		Youngs Branch, UT
VAG406230	Regis Gregory G Residence		Chestnut Lick, UT
VAG406281	Suh Hwa C Residence		Chestnut Lick, UT
VAG406240	Evergreen Volunteer Fire Department and Rescue		Chestnut Lick, UT
VAG406133	Leet Christopher J Residence		Catharpin Run
VAG406099	Cole James C Residence		Bull Run, UT
VAG406255	Hewlett Robert I Residence		Occoquan River, UT
VAG406330	Hall Ronald W Residence		Bull Run, UT
VAG406410	Debell Stuart and Kristina Residence		Bull Run, UT
VAG406411	Day Shannon J Residence		Chestnut Lick, UT
VAG406456	Rankin Jeffrey Residence		Chestnut Lick, UT
VAG406422	Williams Richard D Residence		Catharpin Run, UT
VAG840089	Luck Stone – Bull Run	Mineral Mining	Catharpin Run, UT

13. Material Storage: See **Attachment 5** for the list of chemicals stored on site.

14. Site Inspection: Performed by DEQ-NRO Compliance Staff on 3 November 2006 (see **Attachment 6**).

15. Receiving Stream Water Quality and Water Quality Standards:

a. Ambient Water Quality Data

There is no DEQ monitoring data for the receiving stream. The nearest DEQ water quality monitoring station is located on Bull Run at the Route 28 bridge crossing; 1aBUL010.28, approximately 3.9 miles downstream of the facility.

There are downstream impairments for fish consumption use due to Polychlorinated Biphenyls (PCBs) and aquatic life use due to Dissolved Oxygen criterion excursions and sedimentation loads. The Environmental Protection Agency approved the Bull Run Benthic TMDL on 26 September 2006. This facility received a Wasteload Allocation (WLA) for Total Suspended Solids (TSS) of 5.8 tons/year (see **Attachment 7**).

The Dissolved Oxygen impairment is noted downstream in the Occoquan Reservoir at the dam and is thought to be an unintentional consequence of an aeration system operated by Fairfax Water rather than by pollutants or point sources. Since the aeration system is scheduled to be replaced, this impairment will not require a TMDL.

b. Receiving Stream Water Quality Criteria

Part IX of 9 VAC 25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream Bull Run, UT is located within Section 7a of the Potomac River Basin and classified as Class III water.

At all times, Class III waters must achieve Dissolved Oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32° C and maintain a pH of 6.0– 9.0 standard units (S.U.).

Attachment 8 details other water quality criteria applicable to the receiving stream.

Ammonia:

The 7Q10 and 1Q10 of the receiving stream are 0.0 MGD; therefore, a default temperature value of 25° C and a pH value of 8.0 S.U. were used to calculate the ammonia water quality standards. The ammonia water quality criteria calculations are shown in **Attachment 8**.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (mg/L CaCO₃). However, the 7Q10 of the receiving stream is zero and no ambient data is available. Staff used a default hardness value of 50 mg/L to determine the metals criteria. The hardness-dependent metals criteria shown in **Attachment 7** are based on this value.

Bacteria Criteria:

The Virginia Water Quality Standards (9 VAC 25-260-170.A.) states that the following bacteria criteria shall apply to protect primary contact recreational uses in surface waters:

E. coli bacteria per 100 mL of water shall not exceed the following:

	Geometric Mean ¹
Freshwater <i>E. coli</i> (N/100 mL)	126

¹For four or more samples taken during any calendar month

This is an industrial stormwater discharge. It is staff's best professional judgement that this pollutant is not present.

c. Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Bull Run, UT, is located within Section 7a of the Potomac River Basin. This section has been designated with a special standard of 'g'.

Special Standard 'g' refers to the Occoquan Watershed Policy (9 VAC 25-410). The regulation sets stringent treatment and discharge requirements in order to improve and protect water quality, particularly since the waters are an important water supply for Northern Virginia. The regulation generally prohibits new STPs and only allows minor industrial discharges.

The limitations, as set forth in the Policy, are for wastewater treatment plants; therefore, they are not applicable to this industrial discharge.

d. Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched for records on 16 December 2009 to determine if there are threatened or endangered species in the vicinity of the discharge. Threatened or endangered species were identified within a 2 mile radius of the discharge. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore protect the threatened and endangered species found near the discharge.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the fact that the critical flows 7Q10 and 1Q10 for Bull Run, UT have been determined to be 0.0 MGD. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points are equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLAs) are calculated. In this case, since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLAs are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency and statistical characteristics of the effluent data.

a. Effluent Screening

Effluent data obtained from Discharge Monitoring Reports (DMRs) and the permit application has been reviewed and determined to be suitable for evaluation.

b. Mixing Zones and Wasteload Allocations (WLAs)

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:	WLA	=	Wasteload allocation
	C _o	=	In-stream water quality criteria
	Q _e	=	Design flow
	Q _s	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
	f	=	Decimal fraction of critical flow
	C _s	=	Mean background concentration of parameter in the receiving stream

The water segment receiving the discharge via Outfall 001 and Outfall 002 has been determined to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c. Effluent Limitations, Outfall 001, Outfall 002 and Outfall 101 – Toxic Pollutants

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N:

This is an industrial, stormwater discharge and ammonia based products are not utilized or stored at this facility. It is staff's best professional judgement that ammonia is not present; thus, not a pollutant of concern at this facility.

2) Total Residual Chlorine:

Potable water may be utilized during any hydrostatic testing. Potable water contains measurable amounts of chlorine residual between 1.0 mg/L to 3.0 mg/L; therefore, TRC limitations were established and are only applicable if the water used to conduct the test has been chlorinated. Staff calculated WLAs for TRC using current critical flows. In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits.

An instantaneous maximum limitation of 0.016 mg/L is proposed for Outfall 101 (see **Attachment 9**).

3) Metals:

The Attachment A monitoring conducted for the reissuance application indicated that all metals monitored were below quantification limits; therefore, it is staff's best professional judgement that no limits are warranted.

4) BTEX, petroleum products and hydrostatic testing water parameters:

The following discussion, relative to this facility, can be found in the Fact Sheet for the General VPDES Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests (9 VAC 25-120 et al.); which was reissued on 26 February 2008:

Benzene

The EPA criteria document for benzene (EPA 440/5-80-018, EPA 1980a) states that benzene may be acutely toxic to freshwater organisms at concentrations as low as 5,300 µg/L. This is an LC50 value for rainbow trout. The document also states that acute toxicity would occur at lower concentrations among more sensitive species. No data were available concerning the chronic toxicity of benzene to sensitive freshwater organisms. The derivation of a "safe level" for benzene was based on the 5,300 µg/L LC50. This value was divided by 10 in order to approximate a level which would not be expected to cause acute toxicity. The use of an application factor of 10 was recommended by the National Academy of Sciences in the EPA's publication "Water Quality Criteria, 1972" (EPA/R3/73-033). This use of application factors when setting water quality criteria is still considered valid in situations where data are not sufficient to develop criteria according to more recent guidance. The resulting "non-lethal" concentration of 530 µg/L was divided by an assumed acute to chronic ratio of 10 to arrive at the water quality-based permit limitation of 53 µg/L. When actual data are not available, EPA, in the Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) recommends using an acute to chronic ratio of 10. The EPA model permit's technology-based 50 µg/L value is more protective, therefore, it was chosen over the 53 µg/L water quality-based concentration.

Ethylbenzene

The EPA criteria document for ethylbenzene (EPA 440/5-80-048, EPA 1980b) gives an acute effects concentration of 32,000 µg/L. This is an LC50 for bluegill sunfish. Acute toxicity may occur at lower concentrations if more sensitive species were tested. No definitive data are available on the chronic toxicity of ethylbenzene to freshwater organisms. In order to derive an acceptable level of ethylbenzene for the protection of freshwater organisms the acute value of 32,000 µg/L was divided by 100, using the same assumptions employed above for benzene. The resulting value of 320 µg/L is a calculated chronic toxicity concentration for ethylbenzene.

Toluene

The EPA criteria document for toluene (EPA 440/5-80-075, EPA 1980c) states that acute toxicity to freshwater organisms occurs at 17,500 µg/L and would occur at lower concentrations if more sensitive organisms were tested. No data are available on the chronic toxicity of toluene to freshwater species. Based on the available data for acute toxicity and dividing by the application factor of 100, the proposed effluent limit for toluene discharged to freshwater is 175 µg/L.

Xylenes

Xylene is not a 307(a) priority pollutant; therefore, no criteria document exists for this compound. There are three isomers of xylene (ortho, meta and para) and the general permit limits are established so that the sum of all xylenes is considered in evaluating compliance. The proposed effluent limits are based on a search of the EPA's ECOTOX data base. According to ECOTOX, the lowest freshwater LC50 for xylenes is 3,300 µg/L reported for rainbow trout (Mayer and Ellersieck 1986). Based on the rationale presented earlier for other compounds, this acutely toxic concentration was divided by 10 to account for species that were not tested but which may be more sensitive than rainbow trout. Then, in order to find a concentration that is expected to be safe over chronic exposures, an additional safety factor of 10 was applied to arrive at the proposed effluent limitation of 33 µg/L total xylenes.

Methyl Tertiary Butyl Ether

Methyl Tertiary Butyl Ether (MTBE) is a common additive in "reformulated" automotive gasoline. This oxygenate is supposed to reduce winter-time carbon monoxide levels in U.S. cities. It also is believed to be effective in reducing ozone and other toxics in the air year-round. If MTBE is used, it can be present in gasoline at up to 15% of the volume of the fuel. MTBE is an extremely hydrophilic compound.

Neither EPA nor the DEQ has established water quality criteria for MTBE for protection of aquatic life or human health. Literature searches indicated several studies that evaluated the effects of MTBE on aquatic organisms. According to BenKinney et al. (1994), MTBE was acutely toxic (LC50) to green algae (*Selanastrum capricornutum*) at a concentration of 184,000 µg/L. Geiger and associates (1988) found that MTBE was acutely toxic to the fathead minnow (*Pimephales promelas*) at a concentration of 672 mg/L (672,000 µg/L). Application of the customary safety factor of 100 to the LC50 concentration for green algae results in a concentration of 1,840 µg/L. This concentration is recommended as the discharge limit for MTBE into freshwater.

Ethanol

Neither the DEQ nor EPA has promulgated acute and chronic water quality criteria for ethanol in surface waters. Acute and chronic water quality benchmarks for ethanol were developed using toxicity information available for aquatic invertebrates (*Daphnia* species), rainbow trout, and the fathead minnow from EPA's ECOTOX database (Iott 2001). Based on the available data and using Tier II procedures outlined in the for EPA's Final Water Quality Guidance for the Great Lakes System, an acute water quality benchmark for ethanol in surface water is 564 mg/L, and a chronic water quality benchmark for ethanol is 63 mg/L. The values indicate that an ethanol concentration of 564 mg/L in the water column is likely to cause acute toxicity to freshwater aquatic life and that an ethanol concentration of 64 mg/L in the water column is likely to cause chronic toxicity to freshwater life. The chronic and acute water quality benchmarks developed for ethanol (EPA 2006) are lower than draft water quality criteria developed by the EPA.

Ethanol does not bioaccumulate or bioconcentrate in the tissue of living organisms due to ethanol's chemical properties and to the ability of most organisms to metabolize ethanol (Iott 2001). Human health risks from exposure to ethanol appear to be minimal, especially when compared with the risks posed by other gasoline constituents. Likewise, aquatic toxicity levels for ethanol are quite high. Ethanol also appears to degrade rapidly in both surface and subsurface environments. Based upon these factors, the DEQ does not believe that effluent limits for ethanol are needed for discharge of waters associated with petroleum products containing up to 10% ethanol.

Ethanol concentrations in discharges of petroleum products containing greater than 10% ethanol may pose risks to aquatic organisms. For discharge of petroleum products containing greater than 10% ethanol into surface water bodies not designated as a PWS, a maximum discharge limit of 4.1 mg/L is proposed.

pH

The pH limits in this general permit are based on the Virginia Water Quality Standards and range from a low of six (6.0) standard units to nine (9.0) standard units.

Naphthalene

The EPA criteria document for naphthalene (EPA 440/5-80-059) gives a chronic effect concentration of 620 µg/L with fathead minnows, but it states that effects would occur at lower concentrations if more sensitive freshwater organisms were tested. According to the ECOTOX DATABASE, naphthalene at a concentration of 1,000 µg/L was lethal to 50% of the water fleas (*Daphnia pulex*) tested (Truco et al. 1983). DeGaere and associates (1982) tested the effects of naphthalene on Rainbow Trout and reported an LC50 concentration of 1600 µg/L. Based upon these more recent studies, it is recommended that the effluent limit for naphthalene in freshwater be set at 10 µg/L.

Total Petroleum Hydrocarbons (TPH)

The general permit proposes a technology-based limit of 15 mg/L for TPH. This limit is applicable for discharges where the contamination is from petroleum products other than gasoline. It is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater that is discharged without a visible sheen is generally expected to meet this effluent limitation. DEQ has used this limitation for many individual permits for many years and monitoring data has demonstrated that it is readily achievable. Mass limits are not applicable to this type of pollutant and discharge and are not required.

It is staff's best professional judgement that the limitations and monitoring requirements as set forth above are applicable to this discharge and are proposed as such.

It should be noted that the Water Quality Standards triennial review was completed and approved by EPA during the drafting of this permit. The proposed limits are the most stringent for this type of facility. Please refer to the Water Quality Criteria in **Attachment 8** which reflects the approved triennial review.

d. Effluent Limitations and Monitoring, Outfall 001, Outfall 002 and Outfall 101 – Conventional and Non-Conventional Pollutants

No changes to Total Suspended Solids (TSS) and pH limitations are proposed.

pH limitations are set at the water quality criteria.

e. Effluent Limitations and Monitoring Summary

The effluent limitations are presented in the following tables. Limitations and monitoring requirements were established for Total Suspended Solids, Total Petroleum Hydrocarbons (TPH), BTEX, pH, Naphthalene, Ethanol, MTBE and Total Residual Chlorine.

The limit for Total Suspended Solids is based on Best Professional Judgement.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 and Outfall 002

Stormwater discharge from dike areas.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/Q	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Q	Grab
Total Suspended Solids (TSS)	2	N/A	N/A	N/A	60 mg/L	1/Q	Grab
Total Petroleum Hydrocarbons*	4	N/A	N/A	N/A	15 mg/L	1/Q	Grab
Acute Toxicity – C. dubia (TUa)		N/A	N/A	N/A	NL	1/Y	Grab

The basis for the limitations codes are:

- | | | |
|----------------------------------|---|---|
| 1. Federal Effluent Requirements | <i>MGD</i> = Million gallons per day. | <i>1/Q</i> = Once every calendar quarter. |
| 2. Best Professional Judgement | <i>N/A</i> = Not applicable. | <i>1/Y</i> = Once every calendar year. |
| 3. Water Quality Standards | <i>NL</i> = No limit; monitor and report. | |
| 4. 9 VAC 25-120 | <i>S.U.</i> = Standard units. | |

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW -141 (1995) or by EPA SW -846 Method 8015 C for diesel range organics or by EPA SW -846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

The quarterly monitoring periods shall be January through March, April through June, July through September and October through December.
The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

19b. Effluent Limitations/Monitoring Requirements: Internal Outfall 101 (Hydrostatic Test Waters)

Maximum Flow is dependent on tank volume.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	2/Discharge	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	2/Discharge	Grab
Total Suspended Solids (TSS)	2	N/A	N/A	N/A	60 mg/L	2/Discharge	Grab
Total Petroleum Hydrocarbons*	2,4	N/A	N/A	N/A	15 mg/L	2/Discharge	Grab
Total Residual Chlorine (TRC)	3	N/A	N/A	N/A	0.016 mg/L	2/Discharge	Grab
Benzene	2,4	N/A	N/A	N/A	50 µg/L	2/Discharge	Grab
Toluene	2,4	N/A	N/A	N/A	175 µg/L	2/Discharge	Grab
Ethylbenzene	2,4	N/A	N/A	N/A	320 µg/L	2/Discharge	Grab
Total Xylene	2,4	N/A	N/A	N/A	33 µg/L	2/Discharge	Grab
Methyl Tertiary Butyl Ether (MTBE)	2,4	N/A	N/A	N/A	1,840 µg/L	2/Discharge	Grab
Ethanol**	2,4	N/A	N/A	N/A	4100 µg/L	2/Discharge	Grab
Naphthalene***	2,4	N/A	N/A	N/A	10 µg/L	2/Discharge	Grab

The basis for the limitations codes are:

- | | |
|----------------------------------|---|
| 1. Federal Effluent Requirements | <i>MGD</i> = Million gallons per day. |
| 2. Best Professional Judgement | <i>N/A</i> = Not applicable. |
| 3. Water Quality Standards | <i>NL</i> = No limit; monitor and report. |
| 4. 9 VAC 25-120 | <i>S.U.</i> = Standard units. |

2/Discharge = Two (2) samples per hydrostatic tank test. The first sample shall be collected during the initial discharge or be a representative sample collected and analyzed prior to the discharge. The second sample shall be collected during the discharge of the final 20% by volume or the last two (2) feet of hydrostatic tank test water. Samples shall be collected from the discharge point of the aboveground storage tank.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW -141 (1995) or by EPA SW -846 Method 8015C for diesel range organics or by EPA SW -846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** Monitoring is only required for tanks containing petroleum products consisting of Ethanol greater than 10%.

*** Naphthalene monitoring is only required when testing occurs on tanks containing aviation gasoline, jet fuel or diesel.

Naphthalene shall be analyzed by a current and appropriate EPA Wastewater Method from 40 CFR Part 136 (2007) or a current and appropriate EPA SW 846 Method.

20. Other Permit Requirements:

- a. Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

- b. Permit Section Part I.C. details the requirements for Toxics Management Program.

The VPDES Permit Regulation at 9 VAC 25-31-210 requires monitoring and 9 VAC 25-31-220.I. requires limitations in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. A TMP is imposed for municipal facilities with a design rate > 1.0 MGD, with an approved pretreatment program or required to develop a pretreatment program or those determined by the Board based on effluent variability, compliance history, IWC and receiving stream characteristics.

The Sunoco – Manassas Terminal is an industrial discharger with an effluent that may be potentially toxic. It is staff's best professional judgement that the permittee conduct acute testing during this permit term using *C. dubia* as the test species for Outfall 001 and Outfall 002.

- c. Permit Section Part I.D. details the requirements of a Storm Water Management Plan.

9 VAC 25-31-10 defines discharges of storm water from municipal treatment plants with design flow of 1.0 MGD or more, or plants with approved pretreatment programs, as discharges of storm water associated with industrial activity. 9 VAC 25-31-120 requires a permit for these discharges. The pollution Prevention Plan requirements are derived from the VPDES general permit for discharges of storm water associated with industrial activity, 9 VAC 25-151-10 et seq.

21. Other Special Conditions:

- a. O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. On or before 11 August 2010, the permittee shall submit for review an Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO). Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- b. Water Quality Criteria Reopener. The VPDES Permit Regulation at 9 VAC 25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.
- c. Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:
- (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (a) One hundred micrograms per liter;
 - (b) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
 - (c) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - (d) The level established by the Board.
 - (2) That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (a) Five hundred micrograms per liter;
 - (b) One milligram per liter for antimony;
 - (c) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - (d) The level established by the Board.

- d. Oil Storage Ground Water Monitoring Reopener. As this facility currently manages ground water in accordance with 9 VAC 25-90-10 et seq., Oil Discharge Contingency Plans and Administration Fees for Approval, this permit does not presently impose ground water monitoring requirements. However, this permit may be modified or alternately revoked and reissued to include ground water monitoring not required by the ODCP regulation.
- e. Materials Handling/Storage. 9 VAC 25-31-50.A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.
- f. Hydrostatic Testing. The permittee shall obtain approval from the DEQ Northern Regional Office forty-eight (48) hours in advance of any discharge resulting from hydrostatic testing. The conditions of approval will be contingent on the volume and duration of the proposed discharge, and the nature of the residual product.
- g. TMDL Reopener. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL that may be developed and approved for the receiving stream.
22. Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:

a. Special Conditions:

-The Water Quality Criteria Monitoring requirement condition was removed with this reissuance.

b. Monitoring and Effluent Limitations:

- The following parameters were added or limitations were adjusted to reflect those set forth in 9 VAC 25-120:
 - Benzene limitations were changed from 53 µg/L to 50 µg/L.
 - Total Xylene limitations were changed from 82 µg/L to 33 µg/L.
 - The Naphthalene limit was changed from 62 µg/L to 10 µg/L.
 - The parameter Ethanol was included with this reissuance.
- TOC monitoring was removed to keep in line with current agency guidance.

24. Variances/Alternate Limits or Conditions: Not Applicable

25. Public Notice Information:

First Public Notice Date: 8 April 2010 Second Public Notice Date: 15 April 2010

Public Notice Information is required by 9 VAC 25-31-280 B. All pertinent information is on file and may be inspected and copied by contacting the: DEQ Northern Regional Office; 13901 Crown Court, Woodbridge, VA 22193; Telephone No. (703) 583-3873; Douglas.Frasier@deq.virginia.gov. See **Attachment 10** for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

A benthic TMDL was approved by EPA on 26 September 2006 and this facility was given a Wasteload Allocation (WLA) for Total Suspended Solids of 5.8 tons/year. The proposed TSS limits as set forth should not exceed that WLA.

A Polychlorinated biphenyl (PCB) TMDL is due by 2016 for Bull Run. However, this facility should not be subject to a WLA since the pollutant of concern is not expected to be present in the discharge.

27. Additional Comments:

Previous Board Action(s):	Not Applicable.
Staff Comments:	None.
Public Comment:	No comments were received during the public notice.
EPA Checklist:	The checklist can be found in Attachment 11 .

Fact Sheet Attachments

Table of Contents

Sunoco – Manassas Terminal
VA0087858
2010 Reissuance

Attachment 1	Flow Frequency Determination
Attachment 2	NPDES Permit Rating Worksheet
Attachment 3	Facility Schematic/Diagram
Attachment 4	Topographic Map
Attachment 5	Material Storage
Attachment 6	Inspection Report
Attachment 7	TMDL WLA Memorandum
Attachment 8	Water Quality Criteria
Attachment 9	TRC Limitation Determination
Attachment 10	Public Notice
Attachment 11	EPA Checklist

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Water Quality Assessments

629 East Main Street P.O. Box 10009 Richmond, Virginia 23219

SUBJECT: Flow Frequency Determination
Mobile Oil Company, Manassas Terminal – #VA0087858

TO: Jim Olson, NRO

FROM: Paul E. Herman, P.E., WQAP *Paul*

DATE: July 21, 1999

COPIES: Ron Gregory, Charles Martin, File

RECEIVED
JUL 22 1999

Northern VA. Region
Dept. of Env. Quality

Mobile Oil Company – Manassas Terminal discharges to an unnamed tributary of the Bull Run near Sudley, Virginia. Flow frequencies are required at this site for use by the permit writer in developing the VPDES permit.

The flow frequencies for the discharge receiving stream were determined by inspection of the USGS Gainesville Quadrangle topographic map. The map depicts the stream as intermittent. The flow frequencies for intermittent streams are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, and harmonic mean.

If you have any questions concerning this analysis, please let me know.

NPDES PERMIT RATING WORK SHEET

VPDES NO. : VA0087858

- ☒ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status Change
☐ Deletion

Facility Name: Sunoco Partners Marketing & Terminals, L.P. – Manassas Terminal

City / County: Manassas / Prince William County

Receiving Water: Bull Run, UT

Waterbody ID:

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
 2. A nuclear power Plant
 3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☐ YES; score is 700 (stop here)
☒ NO; (continue)

☐ Yes; score is 600 (stop here) ☒ NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: Primary Sic Code: 5171 Other Sic Codes:

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input checked="" type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 8

Total Points Factor 1: 40

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input checked="" type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input type="checkbox"/> 53	30

Code Checked from Section A or B: 21

Total Points Factor 2: 10

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)

	Code	Points
<input type="checkbox"/> < 100 lbs/day	1	0
<input type="checkbox"/> 100 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
<input type="checkbox"/> > 3000 lbs/day	4	20

Code Number Checked: N/A**Points Scored:** 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

	Code	Points
<input checked="" type="checkbox"/> < 100 lbs/day	1	0
<input type="checkbox"/> 100 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 5000 lbs/day	3	15
<input type="checkbox"/> > 5000 lbs/day	4	20

Code Number Checked: 1**Points Scored:** 0C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)

	Code	Points
<input type="checkbox"/> < 300 lbs/day	1	0
<input type="checkbox"/> 300 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
<input type="checkbox"/> > 3000 lbs/day	4	20

Code Number Checked: N/A**Points Scored:** 0**Total Points Factor 3:** 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☒ YES; (If yes, check toxicity potential number below)☐ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input checked="" type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: 8**Total Points Factor 4:** 20

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	0
<input type="checkbox"/> NO	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

Code Number Checked: A 2 B 1 C 2
Points Factor 5: A 0 + B 0 + C 0 = 0

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from factor 2) 21

Check appropriate facility HPRI code (from PCS):

HPRI#	Code	HPRI Score
<input type="checkbox"/> 1	1	20
<input type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input checked="" type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	20

Enter the multiplication factor that corresponds to the flow code: 0.10

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.1 = 0

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

Code	Points
<input type="checkbox"/> 1	10
<input type="checkbox"/> 2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

Code	Points
<input type="checkbox"/> 1	10
<input type="checkbox"/> 2	0

Code Number Checked: A 4 B N/A C N/A
Points Factor 6: A 0 + B 0 + C 0 = 0

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	40
2	Flows / Streamflow Volume	10
3	Conventional Pollutants	0
4	Public Health Impacts	20
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		70

S1. Is the total score equal to or greater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

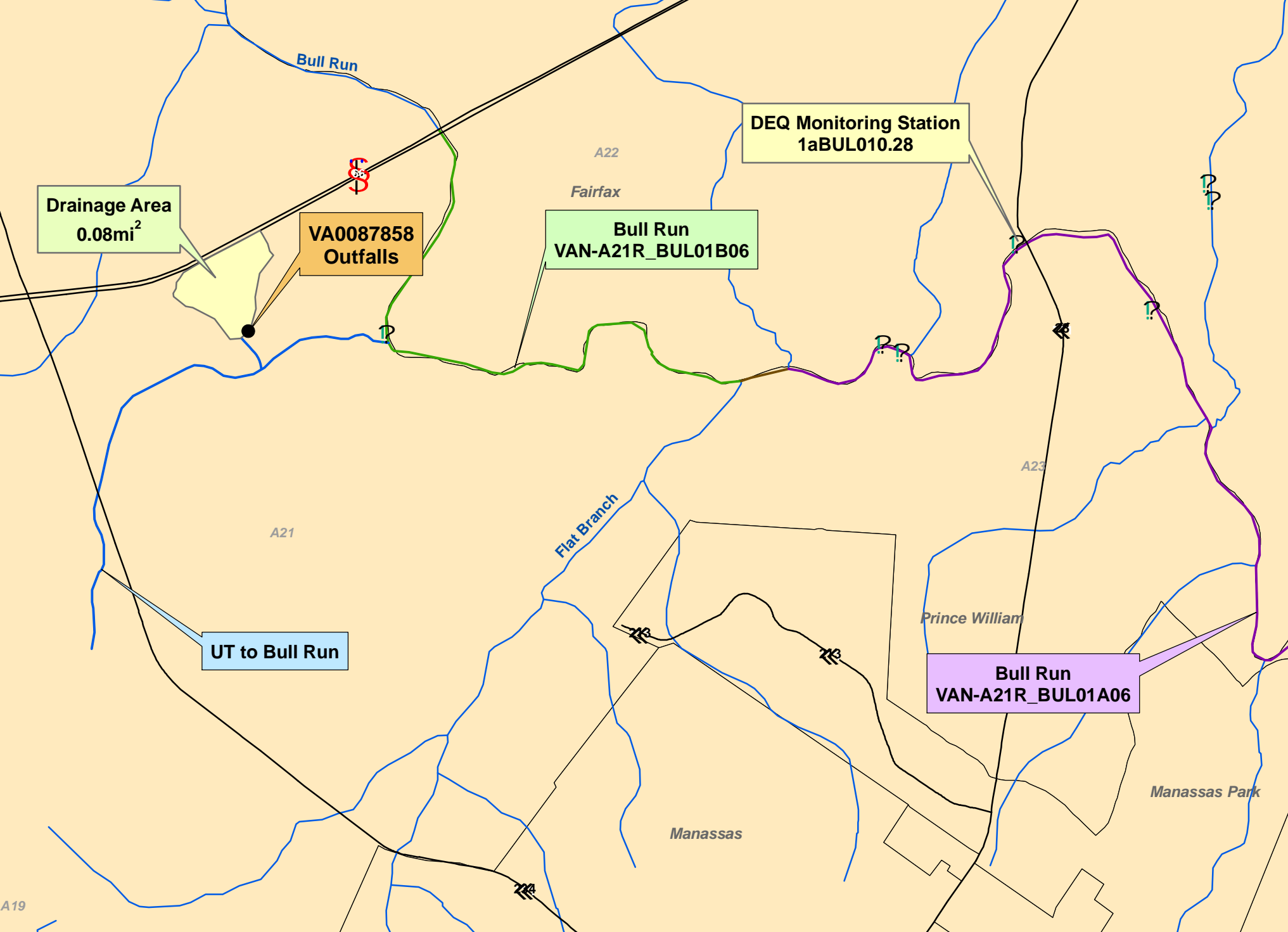
☐ YES; (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE : 70
OLD SCORE : 70

Permit Reviewer's Name : Douglas Frasier
Phone Number: (703) 583-3873
Date: 6 January 2010

(IN FEET)
 40 ft



Drainage Area
0.08mi²

VA0087858
Outfalls

Bull Run
VAN-A21R_BUL01B06

DEQ Monitoring Station
1aBUL010.28

UT to Bull Run

Bull Run
VAN-A21R_BUL01A06

Hazard Identification Table (HIT LIST)
(previously referred to as Equipment and Chemical Labeling List)

Owner/Operator: Sunoco Partners Marketing & Terminals L.P.
Facility Name: Manassas Terminal

Last Revision Date: 10/21/2009

Equipment ID	Material	NFPA Ratings				Material Specific Name Comment	Approx. # of Units	Estimated Amount (lbs.)	Estimated Volume (gal)	Comments
		Fire	Health	Reactive	Hazard Class					
Office	1012-5012 DRY INK CARTRIDGE						1 case	15.00		
Garage	ACETYLENE	4	0	3	Asphyxiant		140 cu.ft.	155.40		
Tank #19	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil	2	2	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin	CHEVRON OGAT215 (Chevron Gas Additive)	1 Tank	66,720.00	8,000	
Tank # 11	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil	2	2	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin	BASF L-0717-C (Generic Gas Additive)	2 Tanks	66,720.00	8,000	
Tank #12	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil	2	2	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin	BASF L-0717-C (Generic Gas Additive)	1 Tank	100,080.00	12,000	
Tank #16	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil	2	2	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin	INNOSPEC OLI 9101.x (Lubricity Additive)	1 Tank	25,020.00	3,000	
Tank #18	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil	3	2	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin	PURADD AP 5000 (Exxon Gas Additive)	1 Tank	66,720.00	8,000	
Garage	AIR BRAKE ANTIFREEZE	3	4	1	Eye/Skin/Lung Irritant; May cause dizziness		12 qts	50.04	6	
Garage	AIR BRAKE CONDITIONER	3	3	0	Eye/Skin/Lung Irritant; May cause dizziness		12 qts	50.04	6	
Garage	ANTIFREEZE	1	2	0	moderate burning, tearing of eyes, skin irritation, nose,throat and respiratory irritation,headache, nausea,vomiting		55 gal	458.70	55	
Garage	BI-CHEM				Eye & Skin Irritant			0.00		
Garage	BLACK MAGIC	4	2	0	Skin Irritant; May cause difficulty breathing and dizziness		12 qts	50.04	6	
Garage	BRAKE CLEANER	3	2	0	Eye/skin/lung irritant; Breathing hazard		12 qts	50.04	6	
VRU	CARBON	1	0	0	Contact may cause eye irritation. Dust may be slightly irritating to eyes and respiratory tract.	Black particulate solid, pellet or powder		24,000.00	1	
Storage Box	COMET LIQUID	0	1	0	Mucous Membrane Irritation		12 qts	50.04	6	
Garage	DA-6150 OPEN & SHUT (AEROSOL)	1	2	0	Eye/Skin/Lung Irritant; May cause dizziness		24 qts	100.08	12	
Tanks #10, 14, 22	15 ppm ULSD	2	0	0	CNS Toxin	15 ppm ULSD	3 Tanks	16,559,941	2,332,386	
Garage	DIESEL FUEL CONDITIONER W/ANTI-GEL	2	2	0	Eye & Skin Irritant; May cause dizziness			0.00		
Pipeline Shed	DIMETHYL BUTANE	3	1	0	Mucous Membrane Irritation; GI Irritant		24 pts	50.04	6	
Additive Shed	ETHYLENE GLYCOL	2	1	0	Skin/eye/respiratory irritant, lung/kidney/liver damage, nervous system toxin, combustible. blood toxin		1 pt	2.09	0	
Garage	FOAM - NATIONAL FOAM UNIVERSAL GOLD 3%	0	0	0	Eye & skin irritant	Antifreeze	110 gallons	917.40	110	
Tanks #1, 2, 4, 5, 6, 7, 15, 21	Gasoline	3	1	0	Skin hazard, sensitizer, kidney toxin,lung toxin, nervous system toxin, irritant,flammable,eye hazard,carcinogen(may cause cancer), liver toxin	Gasoline	8 Tanks	72,312,706.20	11,854,542	
Garage	GLASS CLEANER - GENERIC	0	0	0	Skin Irritant		20 gal	166.80	20	
Garage	GREASE /HEAVY SLOP GREASE	0	2	0	Eye & Skin Irritant; May cause dizziness		120 lbs	120.00	14	
Tank #3	Ethanol	3	2	0	Extremely flammable liquid and vapor. May cause respiratory tract and skin irritation. Do not swallow. Birth defect hazard.	Ethyl Alcohol for Gasoline Blending	1 Tank	5,619,917.34	673,851	
Tank #20	Additive (fuel oil, gas or lubricating oil) containing <50% by weight petroleum oil					Innospec 7725 & 9505-D Diesel Premium Additive	1 Tank	8,340.00	1,000	
Tank #17	Diesel Fuel 2	0	2	0	Toxic,carcinogen (may cause cancer) combustible liquid	#2 Fuel Oil	1 Tank	3,905.00	550	
Garage	HEAVY DUTY CLEANER PREMIER CHEMICALS	0	3	0	Mucous Membrane Irritant.		1 drum	458.70	55	
Outside Storage Area	LIQUIFIED PETROLEUM GAS	4	1	0	Skin irritant and freeze burns. May cause respiratory irritation, dizziness, nausea, loss of consciousness.		15 gal	125.10	15	
Upper Storage Trailer	MINERAL OIL	1	1	0	Irritation to respiratory tract. Possible aspiration pneumonia.		5 gal	41.70	5	
Garage	MINERAL SPIRITS	2	1	0	Eye/Skin/Lung Irritant; May cause dizziness	Red Liquid	24 qts	100.08	12	
Garage	MOBIL ATF	1	0	0	Eye irritant	Brown Liquid	1800 lbs	1,800.00	216	
Garage	MOBIL DELVAC 1	1	0	0	Eye irritant	Brown Liquid	24 qts	100.08	12	
Garage	MOBIL DELVAC 1200 SUPER 10w-30	1	0	0	Eye irritant	Brown Liquid	6 Drums	2,752.20	330	
Garage	MOBIL DRIVE CLEAN OIL 10W-40	1	0	0	may cause allergic skin reaction	Amber Liquid	2 Drums	917.40	110	

		NFPA Ratings								
Equipment ID	Material	Fire	Health	Reactive	Hazard Class	Material Specific Name Comment	Approx. # of Units	Estimated Amount (lbs.)	Estimated Volume (gal)	Comments
Garage	MOBIL DTE OIL HEAVY	1	0	0	No health hazards expected	Gray Grease	120 lbs	120.00		
Garage	MOBIL GREASE SPECIAL	1	0	0	Eye & skin irritation	Gear Lube	20 gal	166.80	20	
Garage	MOBILUBE SHC 75w-90	1	0	0	Eye & skin irritation	Metal Polish	12 pts	25.02	3	
Supply Room	MORADO SUPER CLEANER	0	3	0	Corrosive to eyes and skin; May cause irritation or burns to respiratory or digestive tract if inhaled/swallowed.		12 qts	50.04	6	
Garage	MOTHERS MAG & ALUMINUM POLISH	1	1	0	Eye & skin irritation; May cause CNS effects.		140 cu. ft.	11.62		
Garage	MURPHYS TIRE SOAP	0	1	0	Eye irritant		25 gal	208.50	25	
Garage	OXYGEN	0	0	0	No health hazards expected. Accelerates combustion	Amber Liquid	12 qts	50.04	6	
Storage Box	PAINT- SHERWIN WILLIAMS	2	2	0	Eye & Skin Irritant; May cause headache, dizziness, nausea		12 qts	50.04	6	
Garage	PRIZM LUBRICANT	4	1	0	Eye & skin irritation; May cause CNS effects.		12 qts	50.04	6	
Garage	PRO LINE NON-DETERGENT MOTOR OIL ND30	1	0	0	Lung irritant; May cause headache, dizziness, nausea	Light Colored Grease	10 gal	83.40	10	
Garage	QUAKER STATE DEXRON (R)MERCON® AUTOMATIC TRANSMISSION FLUID	1	1	0	Skin irritant.		12 qts	50.04	6	
Garage	RADIATOR CONDITIONER	0	2	0	Eye, skin, mucous membrane irritant	light amber liquid	12 qts	50.04	6	
Garage	SIMPLE GREEN INDUSTRIAL CLEANER	0	1	0	Mild eye irritant.	Rust/corrosion protecant	12 qts	50.04	6	
Garage	SNAP STARTING FLUID	4	3	0	Eye/skin/lung irritant. Carcinogen.		12 qts	50.04	6	
Garage	SOSMETAL ANTI - SEIZE	3	2	1	Eye and skin irritant. May cause headache, dizziness, nausea.		12 qts	50.04	6	
Garage	SOSMETAL BATTERY CLEANER AND PROTECTOR	4	2	0	Eye and skin irritant. May cause headache, dizziness, nausea.		12 qts	50.04	6	
Garage	SOSMETAL GASKET ADHESIVE / SEALANT	0	1	0	Eye, skin, mucous membrane irritant	Adhesive - Red gel with vinegar odor	12 qts	50.04	6	
Garage	SOSMETAL GASKET REMOVER	4	2	0	Eye and skin irritant. May cause headache, dizziness, nausea.		12 qts	50.04	6	
Garage	SOSMETAL MAKE A GASKET RTV RED SILICONE	0	1	0	Eye, skin, lung irritant.	Lubricant	12 qts	50.04	6	
Garage	SOSMETAL MAXI LUBE WHITE GREASE	1	1	1	Eye, skin, lung irritant.	Moist, orange powder. Makes a light green solution	12 qts	50.04	6	
Garage	SOSMETAL NON-CHLORINATED BRAKE CLEANER	1	1	0	Eye, skin irritant. Possible CNS effects.	Methylene Chloride	12 qts	50.04	6	
Garage	SOSMETAL P-135 HOUND DOG CONCRETE CLEANER	0	3	1	Eye/ skin/ lung irritant.		12 qts	50.04	6	
Garage	SOSMETAL PAINT REMOVER	4	2	0	Skin & eye irritant. May cause dizziness, difficulty in breathing, and/or corneal injury.	Rust Penetrator	12 qts	50.04	6	
Garage	SOSMETAL PENETRANT	4	2	0	Skin & eye irritant. If inhaled, may cause irritation of respiratory tract, and/or CNS depression.	Green liquid	12 qts	50.04	6	
Garage	SOSMETAL PERMA-LOK	1	0	2	Eye & skin irritant. Skin sensitizer. May cause nausea, vomiting, diarrhea.	Water Repellant	12 qts	50.04	6	
Garage	SOSMETAL SILICONE LUBRICANT	2	1	0	Eye irritant. May cause headache, dizziness, nausea, unconsciousness. Prolonged exposure can cause nerve damage.		12 qts	50.04	6	
Garage	SOSMETAL SILICONE RTV SEALANT	1	2	0	Eye/ skin/ lung irritant.		12 qts	50.04	6	
Garage	SOSMETAL TIRE CLEAN & SHINE	2	1	0	Eye & skin irritant. May cause headache, fatigue, nausea, drowsiness.		12 qts	50.04	6	
Storage Box	SPRAY-NINE	0	1	0	Eye & skin irritant.		12 qts	50.04	6	
Storage Box	STAINLESS STEEL	0	0	0	ENR irritant. May cause flu-like symptoms.	Clear liquid w/ yellow tint and petroleum odor	12 qts	50.04	6	
Garage	STP- SON OF A GUN TIRE CARE	2	1	0	Eye & skin irritant. May cause headache, fatigue, nausea, drowsiness.		12 qts	50.04	6	
Storage Box	WASP & HORNET KILLER PLUS (CRC)	4	2	1	Eye & skin irritant. May cause headache, dizziness, nausea, CNS depression.	Aerosol glass cleaner	12 qts	50.04	6	
Garage	WINDSHIELD CLEANER	2	1	0	Eye & skin irritant. May cause CNS damage.		12 qts	50.04	6	
Storage Box	ZEP 40	1	1	0	Eye irritant	Aluminum Cleaner	12 qts	50.04	6	
Storage Box	ZEP AIR SANITIZER	2	2	0	Eye irritant	Parts Cleaner Solvent	55 gal	458.70	55	
Garage	ZEP ALUME-E	0	3	0	Corrosive to eyes and skin	Aerosol anti-seize agent	12 qts	50.04	6	
Garage	ZEP DYNA 143	2	1	0	Eye/ skin/ lung irritant.	Aerosol deodorant	12 qts	50.04	6	
Garage	ZEP GROOVY	4	2	0	Eye/ skin/ lung irritant.	Liquid Hand Cleaner	12 qts	50.04	6	
Storage Box	ZEP METER MIST CINNAMON	1	1	0	Eye & skin irritant.		12 qts	50.04	6	
Storage Box	ZEP REACH	0	0	0	Possible skin irritation, if overused.	Liquid truck and trailer wash	12 qts	50.04	6	
Storage Box	ZEP SPLIT EQUIPMENT CLEANER	0	2	0	Eye & skin irritant.		12 pts	25.02	3	
Storage Box	ZEP TNT	0	2	0	Eye & skin irritant.		5 gal	41.70	5	
Storage Box	ZEPTOX II	1	1	0			1 gal	8.34	1	

DEQ
FACILITY INSPECTION REPORT
PREFACE

VPDES/State Certification No.	(RE) Issuance Date	Amendment Date	Expiration Date
VA0087858	2/23/2005		2/22/2010
Facility Name	Address		Telephone Number
Sunoco – Manassas Terminal	10315 Balls Ford Road Manassas, VA 20109		610-859-5405
Owner Name	Address		Telephone Number
Sunoco Partners M&T, LP	1801 Market Street Philadelphia, PA 19103		703-368-9055
Responsible Official	Title		Telephone Number
Kelly Schmatz	Environmental Engineer		610-859-5405
Responsible Operator	Operator Cert. Class/number		Telephone Number
John Humphreys	Facility Manager		703-368-9055

TYPE OF FACILITY:

DOMESTIC				INDUSTRIAL			
Federal		Major		Major		Primary	X
Non-federal		Minor		Minor	X	Secondary	

OUTFALL 001 EFFLUENT LIMITS: mg/L unless otherwise stated

Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow (MGD)		NL	NL	TSS			60.0
pH (SU)	6.0		9.0	TPH			15.0

	Receiving Stream	UT, Bull Run	
	Basin	Potomac River	
	Discharge Point (LAT)	38° 47' 55" N	
	Discharge Point (LONG)	77° 30' 15" W	

OUTFALL 002 EFFLUENT LIMITS: mg/L unless otherwise stated

Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow (MGD)		NL	NL	TSS			60.0
pH (SU)	6.0		9.0	TPH			15.0

	Receiving Stream	UT, Bull Run	
	Basin	Potomac River	
	Discharge Point (LAT)	38° 47' 55" N	
	Discharge Point (LONG)	77° 30' 15" W	



NORTHERN VIRGINIA REGIONAL OFFICE
13901 CROWN COURT, WOODBRIDGE, VA. 22193
PHONE: (703) 583-3870 FAX: (703) 583-3871

SITE INSPECTION REPORT

FACILITY NAME:	Sunoco – Manassas Terminal				
PERMIT NUMBER:	VA0087858	INSPECTION DATE:	11/3/06	REPORT DATE:	11/15/06
INSPECTOR:	Beth Biller	REVIEWER	DATE		
PRESENT AT INSPECTION:	Kelly Schmatz, John Humphreys – Sunoco Logistics				

Inspection Type:

<input type="checkbox"/>	Compliance	WL/NOV#:	<input checked="" type="checkbox"/>	Announced
<input type="checkbox"/>	Sampling		<input checked="" type="checkbox"/>	Scheduled
<input checked="" type="checkbox"/>	Other: Technical			

Observation Section:

- ▶ Arrived on-site @ 1000.
- ▶ Weather conditions were sunny and breezy temperature in the upper 50's.
- ▶ Ms. Schmatz and Mr. Humphreys provided documentation for review:
 - Stormwater Pollution Prevention Plan (SWPPP) and all supporting documentation.
 - Chain of Custody and Certificate of Analysis from Lancaster Laboratories for compliance monitoring.
 - Chain of Custody and Certificate of Analysis from James R. Reed Laboratories for toxicity monitoring.
 - pH meter manufacture's instructions and calibration log.
- ▶ Ms. Schmatz and Mr. Humphreys provided a tour of the facility.
 - There are 2 Outfalls for this facility
 - Erosion was noted along the concrete at the outfall. Mr. Humphreys stated he would have gravel installed to stabilize the area and prevent further erosion.
 - Outfall 001 consists of pond discharge that receives sheet flow from part of the parking area and the paved roads within the facility.
 - Outfall 002 consists of drainage from the dike area, loading rack and part of the parking area.
 - 7 ASTs are located in the graveled diked area.
 - 4 bays are located in the loading rack which drains to 2 holding tanks. Any spills are collected and hauled offsite.

- All vehicle washing activities are contained, the washwater is collected via vacuum truck and hauled offsite.
- A proposal has been submitted to Prince William County for the facility to close the pond and add 2 additional tanks. The proposal indicates the 2 current outfalls would be combined and relocated (see photo 2). Ms. Schmatz inquired about permit modification; I informed her I would pass along the information to the permit staff for review.
- ▶ Departed site @ 1100.

PHOTOGRAPH LOG

- ▶ Photos taken by Beth Biller
- ▶ Photos can be located on the DEQ U drive @ Photos - Water Facilities – Sunoco Manassas Terminal (VA0087858).
- ▶ Photos are included with this report.

Compliance Section:

DMR VIOLATION(S): **None**

INSPECTION VIOLATION(S):

1. **Erosion along the concrete of the outfall.**

CAUSE OF VIOLATION(S):

1. **Possibly due to high flow velocity.**

CORRECTIVE ACTION(S) TAKEN:

1. **Gravel is to be installed to stabilize and prevent further erosion.**

Sampling Section: NA

Facility:	Sunoco Manassas Terminal
Address:	10315 Balls Ford Road Manassas, VA 20109
County:	Prince William
Contact/Title	John Humphreys – Facility Manager

VPDES NO.	
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**DEPARTMENT OF ENVIRONMENTAL QUALITY
STORMWATER GENERAL FACILITY
INSPECTION REPORT**

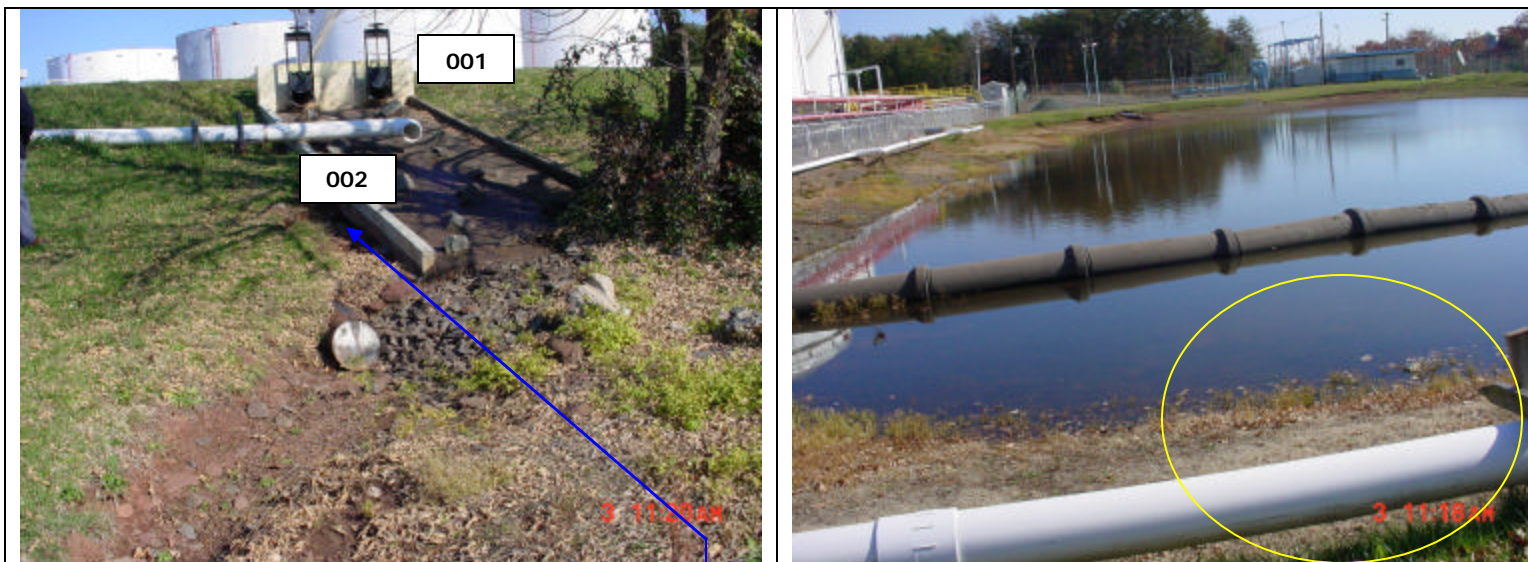
Inspection date:	11/3/06	Date form completed:	11/15/06
Inspection by:	Beth Biller	Inspection agency:	DEQ/NVRO
Time spent:	8 Hours		
Reviewed by:			
Present at inspection:	John Humphreys, Kelly Schmatz – Sunoco Logistics		

TYPE OF INSPECTION:				
Routine	X	Reinspection		Compliance/assistance/complaint
Date of previous inspection:	None	Agency:	DEQ/NVRO	
	Other:			

Storm Water P3 available and up dated?	YES	X	NO	
Outfalls Identified in SWP3?	YES	X	NO	
Site Map with Drainage and Flows available?	YES	X	NO	
Has there been any new construction?	YES		NO	X
If yes, were the plans and specifications approved?	YES		NO	
If yes, was SWP3 plan amended?	YES		NO	
Quarterly Visual Results available with SWP3?	YES	X	NO	
Site Inspections performed and documented? (Minimum Quarterly)	YES	X	NO	
Training performed and documented?	YES	X	NO	
Comprehensive Site Evaluation and associated documents available?	YES	X	NO	
Non-stormwater certification?	YES	X	NO	
Oil or other Hazardous Spills?	YES	X	NO	
Sampling Required and performed correctly, records available?	YES	X	NO	

OVERALL APPEARANCE OF FACILITY	GOOD	X	AVERAGE		POOR	
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PART IV: SECTOR SPECIFIC PERMIT REQUIREMENTS		YES	NO
	Additional Stormwater Pollution Prevention Plan Requirements; Measures & Controls: 1. Good Housekeeping: All areas that may contribute pollutants to storm water discharge shall be maintained in a clean, orderly manner. 2. Inspections: Records of inspections shall be maintained. 3. Employee Training: Shall identify how often training will take place, at a minimum annually. Must address, as applicable, SWPPP requirements; used oil management; spent solvent management; spill prevention, response and control; fueling procedures, general good housekeeping practices, proper painting procedures; and used battery management. 4. Nonstorm Water Discharges	X X X X	
SUMMARY			
INSPECTION COMMENTS:			
	The facility is neat, clean and well maintained.		
	The SWPPP is complete and up to date, all documentation was available for review.		
	An area of erosion was observed along the concrete of the outfall.		
COMPLIANCE RECOMMENDATIONS FOR ACTION			
	As discussed at the time of inspection, install gravel along the outfall to stabilize and prevent further erosion. Provide DEQ with documentation once the work has been completed.		



1) Overview of Outfalls

2) Overview of Pond

Erosion was noted along the concrete of the outfall

Facility has proposed the closure of the pond to add additional tank storage. The proposal would include combining Outfalls 001 and 002 to a single outfall in the general location noted in photo 2.

To: Bryant Thomas: Regional Permits Manager, Northern Regional Office, DEQ
Doug Frasier: Permit Writer, Northern Regional Office, DEQ

From: Katie Conaway: TMDL Coordinator, Northern Regional Office, DEQ

Subject: Waste Load Allocation for Sunoco – Manassas Terminal
VPDES Permit Number VA0087858

Date: February 26, 2010

A sediment Total Maximum Daily Load (TMDL) was completed for the Bull Run watershed in 2006. As part of that TMDL, the VPDES Permit for Sunoco - Manassas Terminal (VA0087858) was given a waste load allocation (WLA). As part of the permit reissuance process for VA0087858, some questions were raised as to how the WLA was calculated. This memo describes how the WLA was derived for this facility.

Under the Bull Run Sediment TMDL, the VPDES Permit for Sunoco - Manassas Terminal (VA0087858) was assigned a waste load allocation (WLA) for discharges from Outfalls 001 and 002. Calculation of the allocation for the discharge from Outfalls 001 and 002 was based on the facility's permitted limit for total suspended solids (TSS) of 60 mg/L and their average daily flow. The average daily flow from the facility was calculated using Discharge Monitoring Reports (DMRs) submitted by the facility from 1999 – 2005.

Permitted TSS Discharge Limit: 60 mg/L

Estimated Daily Flow: 0.06347 Million Gallons Day (MGD)

Calculated TSS Loading: 14.4 kg/day which equates to **5.8 tons of sediment per year**

This WLA is referenced in Table 6.1 of the Bull Run Sediment TMDL. Considering that this WLA was developed using a daily flow value, and it is almost certain that this facility does not discharge on a daily basis, the allocation is sufficient. The 60 mg/L TSS permit limit is consistent with how the TMDL allocation was developed. Provided that this facility maintains its TSS limit of 60 mg/L, this facility should not exceed its TMDL allocation.

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: **Sunoco - Manassas Terminal**

Permit No.: **VA0087858**

Receiving Stream: **Bull Run, UT**

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Mix =	100 %	Mean Hardness (as CaCO3) =	50 mg/L
90% Temperature (Annual) =	deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	25 deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	0 MGD	- 30Q10 Mix =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	8 SU
10% Maximum pH =	SU	30Q10 (Wet season) =	0 MGD	- 30Q10 Mix =	100 %	10% Maximum pH =	SU
Tier Designation (1 or 2) =	1	30Q5 =	0 MGD			Discharge Flow =	2.125 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0 MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile ^C	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin ^C	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	3.0E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	8.41E+00	1.24E+00	na	--	8.4E+00	1.2E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	1.2E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	8.41E+00	2.43E+00	na	--	8.4E+00	2.4E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	2.4E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^C	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine ^C	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis(2-Chloroethyl) Ether ^C	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis 2-Ethylhexyl Phthalate ^C	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform ^C	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	1.8E+00	6.6E-01	na	--	1.8E+00	6.6E-01	na	--	--	--	--	--	--	--	--	--	1.8E+00	6.6E-01	na	--
Carbon Tetrachloride ^C	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane ^C	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	3.2E+02	4.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.2E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^C	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	7.0E+00	5.0E+00	na	--	--	--	--	--	--	--	--	--	7.0E+00	5.0E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD ^C	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE ^C	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT ^C	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine ^C	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane ^C	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane ^C	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^C	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene ^C	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin ^C	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene ^C	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine ^C	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^C	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene ^C	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene ^C	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane																					
Alpha-BHC ^C	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane																					
Beta-BHC ^C	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane																					
Gamma-BHC ^C (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane ^C	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^C	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	4.9E+01	5.6E+00	na	--	--	--	--	--	--	--	--	--	4.9E+01	5.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride ^C	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.0E+02	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.0E+02	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine ^C	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine ^C	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine ^C	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total ^C	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	na	3.0E+01	7.7E-03	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	1.0E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene ^C	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene ^C	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane ^C	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene ^C	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol ^C	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride ^C	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	6.5E+01	6.6E+01	na	2.6E+04	--	--	--	--	--	--	--	--	6.5E+01	6.6E+01	na	2.6E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)	Note: do not use QL's lower than the minimum QL's provided in agency guidance
Antimony	6.4E+02	
Arsenic	9.0E+01	
Barium	na	
Cadmium	3.9E-01	
Chromium III	2.5E+01	
Chromium VI	6.4E+00	
Copper	2.8E+00	
Iron	na	
Lead	3.4E+00	
Manganese	na	
Mercury	4.6E-01	
Nickel	6.8E+00	
Selenium	3.0E+00	
Silver	4.2E-01	
Zinc	2.6E+01	

12/22/2009 7:54:17 AM

Facility = Sunoco - Manassas Terminal

Chemical = Chlorine

Chronic averaging period = 4

WLAa = 0.019

WLAc = 0.011

Q.L. = 0.2

samples/mo. = 1

samples/wk. = 1

Summary of Statistics:

observations = 1

Expected Value = 20

Variance = 144

C.V. = 0.6

97th percentile daily values = 48.6683

97th percentile 4 day average = 33.2758

97th percentile 30 day average = 24.1210

< Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity

Maximum Daily Limit = 1.60883226245855E-02

Average Weekly limit = 1.60883226245855E-02

Average Monthly Limit = 1.60883226245855E-02

The data are:

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of industrial stormwater into a water body in Prince William County, Virginia.

PUBLIC COMMENT PERIOD: April 9, 2010 to 5:00 p.m. on May 10, 2010

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Stormwater issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Sunoco Partners Marketing & Terminals, L.P.
10315 Balls Ford Road, Manassas, VA 20109
VA0087858

NAME AND ADDRESS OF FACILITY: Sunoco Partners Marketing & Terminals – Manassas
10315 Balls Ford Road, Manassas, VA 20109

PROJECT DESCRIPTION: Sunoco Partners Marketing & Terminals, L.P. has applied for a reissuance of a permit for the private Sunoco – Manassas Terminal. The applicant proposes to release industrial storm water at a rate of 0.5 million gallons per day into a water body. There is no sludge generated at this facility. The facility proposes to release the storm water in the Bull Run, UT in Prince William County in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: TSS, TPH, BTEX, pH, Naphthalene, Ethanol, MTBE and Chlorine.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Douglas Frasier

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3873 E-mail: Douglas.Frasier@deq.virginia.gov Fax: (703) 583-3821

Revised 2/2003

**State “Transmittal Checklist” to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Sunoco – Manassas Terminal
NPDES Permit Number:	VA0087858
Permit Writer Name:	Douglas Frasier
Date:	6 January 2010

Major ☐ Minor ☒ Industrial ☒ Municipal ☐

I.A. Draft Permit Package Submittal Includes:

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?			X
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?		X	
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?			X
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water? DOWNSTREAM			X
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water? DOWNSTREAM	X		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals (To be completed and included in the record for all non-POTWs)

II.A. Permit Cover Page/Administration

	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements

	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)

	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a “reasonable measure of ACTUAL production” for the facility (not design)?			X
5. Does the permit contain “tiered” limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?		X	
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits

	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			X
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			X

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?		X	
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

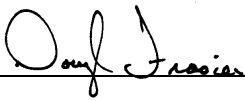
II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?		X	
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State’s standard practices?	X		

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?	X		
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?	X		
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Douglas Frasier</u>
Title	<u>Environmental Specialist II Senior II</u>
Signature	<u></u>
Date	<u>6 January 2010</u>